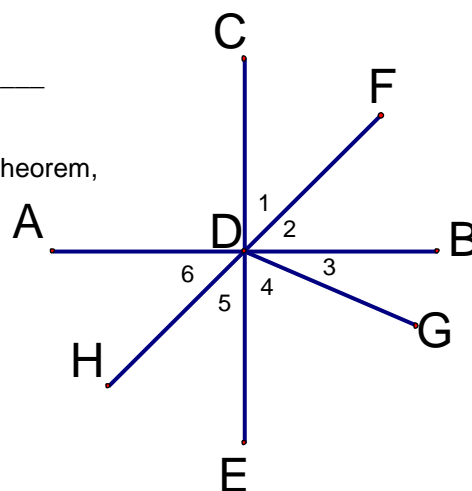


Name \_\_\_\_\_ Date \_\_\_\_\_

## 201 Chapter 2 Worksheet

Justify the following statements with a definition, postulate, property, theorem, etc...

1. \_\_\_\_\_  $AD + DB = AB$
2. \_\_\_\_\_  $m\angle 1 + m\angle 2 = m\angle CDB$
3. \_\_\_\_\_ If  $AD = BD$  and  $CD = DE$ ,  
then  $AD + CD = BD + DE$ .
4. \_\_\_\_\_  $\angle 2 \cong \angle 6$
5. \_\_\_\_\_ If  $\overline{DF}$  bisects  $\angle CDB$ , then  $m\angle 1 = m\angle 2$ .
6. \_\_\_\_\_ If  $D$  is the midpoint of  $AB$ , then  $AD = DB$ .
7. \_\_\_\_\_ If  $CD \perp AB$ , then  $\angle CDB$  is a right angle.
8. \_\_\_\_\_ If  $\angle CDB$  is a right angle,  $m\angle CDB = 90$ .
9. \_\_\_\_\_ Look at the picture,  $\angle ADF$  and  $\angle FDB$  are a linear pair.
10. \_\_\_\_\_ If  $\angle ADF$  and  $\angle FDB$  are a linear pair, then  $\angle ADF$  and  $\angle FDB$  are supplementary.
11. \_\_\_\_\_ If  $m\angle 1 + m\angle 2 = 90$ , then  $\angle 1$  and  $\angle 2$  are complementary.
12. \_\_\_\_\_ If  $\angle 4$  and  $\angle 5$  are complementary and  $\angle 6$  and  $\angle 5$  are complementary, then  $\angle 4 \cong \angle 6$ .
13. \_\_\_\_\_ If  $\angle 1$  and  $\angle 2$  are supplementary and  $\angle 2$  and  $\angle 3$  are supplementary, then  $\angle 1 \cong \angle 3$ .

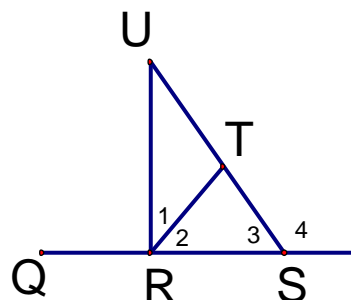


Complete with always, sometimes, or never.

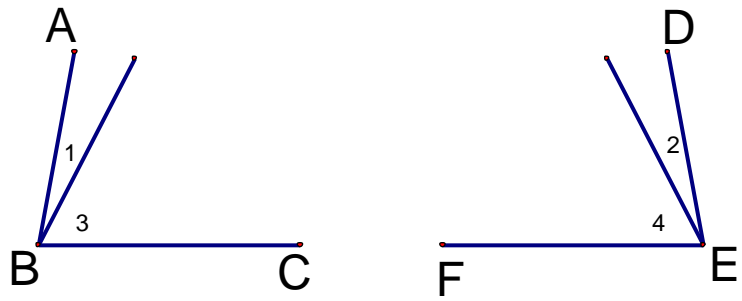
14. Two points \_\_\_\_\_ lie in exactly one line.
15. Three points \_\_\_\_\_ lie in exactly one line.
16. Three points \_\_\_\_\_ lie in exactly one plane.
17. Three collinear points \_\_\_\_\_ lie in exactly one plane.
18. Two planes \_\_\_\_\_ intersect.
19. Two intersecting planes \_\_\_\_\_ intersect in exactly one point.
20. Two intersecting lines \_\_\_\_\_ intersect in exactly one point.
21. Two lines \_\_\_\_\_ intersect in exactly one point.
22. Two intersecting lines \_\_\_\_\_ lie in exactly one plane.

Write proofs for the following problems.

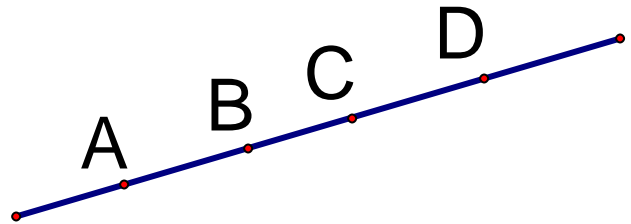
23. Given:  $\angle 2$  and  $\angle 4$  are supplementary  
Prove:  $\angle 2 \cong \angle 3$



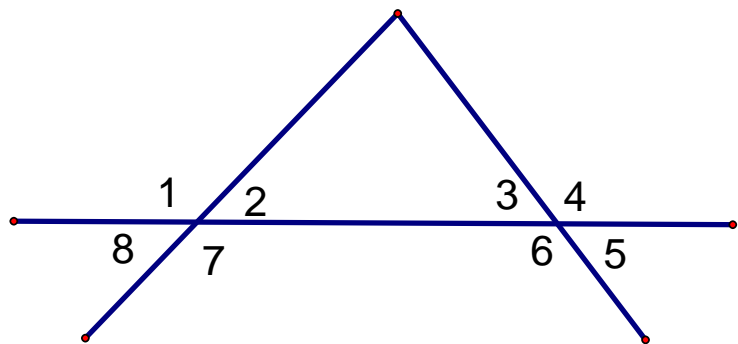
24. Given:  $\angle 1 \cong \angle 2$ ;  $\angle 3 \cong \angle 4$   
Prove:  $\angle ABC \cong \angle DEF$



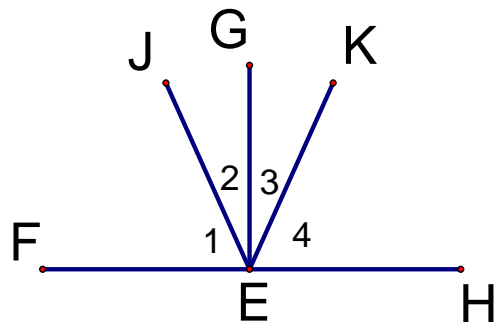
25. Given: B is the midpoint of  $\overline{AC}$   
Prove:  $AB + CD = BD$



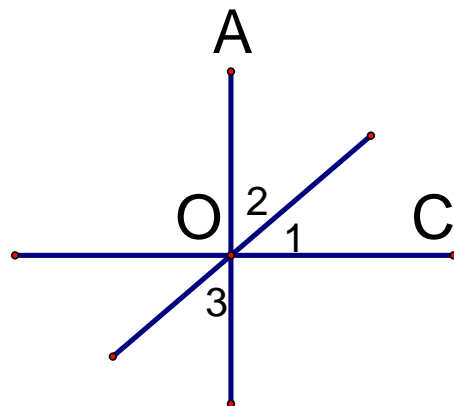
26. Given:  $\angle 7 \cong \angle 6$   
Prove:  $\angle 1 \cong \angle 4$



27. Given:  $\overline{EG} \perp \overline{FH}$ ;  $\overline{EG}$  bisects  $\angle JEK$   
Prove:  $m\angle 1 = m\angle 4$



28. Given:  $\angle 1$  and  $\angle 2$  are complementary  
Prove:  $\overline{AO} \perp \overline{OC}$



This review does not contain any algebra style questions. To review those, you can look at p.128 #s 12-14, 28, 29; p.117 #s 17, 18; p.11 #s 39, 40; p.11 quiz #s 1-7 (These are not required.)